



SPECIALIZATION AND EXPERIENCE

Since dust produced by the handling and processing of grain has been known to be a hazard to human life, health and property, the "Day" name has been synonymous to Dust Control.

Constant application to this problem and continuous striving to improve equipment and practices has resulted in greatly improved operation.

That is why "Day" engineered and installed systems are now recognized by grain processors and handlers everywhere as the standard in efficiency and economy in modern Dust Control.

The DAY Company

2938 Pillsbury Ave.

Minneapolis, Minn.

In Canada, The Day Company of Canada, Ltd.

AUGUST • 1941

TOLEDO,

Grain Feedmen's Mecca

SEPTEMBER 14th, 15th, 16th

PLANs have been completed for the speaking and entertainment programs that are expected to draw to Toledo the largest group of grain and feed men ever recorded in the mid-eastern area, according to Mr. Ray B. Bowden. The occasion is the forty-fifth annual meeting of the Grain & Feed Dealers National Association, combined with the fall meeting of the Ohio Grain, Mill & Feed Dealers Association, and a tri-state conference of the Society of Grain Elevator Superintendents. The dates are September 15th and 16th, with many important preliminary conferences on September 14th.

by Canadian points, Buffalo, Pittsburgh, Louisville, St. Louis, Milwaukee, Chicago and accessible Illinois points," Mr. Pauken points out, "in addition to the eighty-odd we're inviting from Ohio, Michigan and Indiana."

"Many members of the Superintendents' Society frequently attend the 'parent' body's gatherings, and we cordially extend a hearty welcome to all of those to be with us. We definitely expect to develop a live-wire Toledo area Chapter as an outgrowth of our conferences—and are we ever going to show some of the older units our dust!"

Superintendents' Society to Hold Sectional Joint Meeting

NUMBER OF TRADE GROUPS TO MEET

A NUMBER of grain trade groups will meet during this convention period, Executive Vice President Bowden says. These include the National Grain Trade Council, the Association Secretaries' Association, the Terminal Grain Weighmasters National Association, the Chief Grain Inspectors National Association, the Federation of Cash Grain Commission Merchants' Associations, etc.

In charge of this mammoth event are: M. H. Faulring, General Chairman and Toledo Manager for Archer-Daniels-Midland Company; Sam L. Rice, Vice President of the G&FDNA and President of The Rice Grain Company; George R. Forrester, President of the Toledo Board of Trade as well as of the G. R. Forrester Company; A. C. Hoffman, Convention Treasurer and Manager of Sheets Elevator Company; John W. Luscombe, Entertainment Chairman with Southworth Grain Company, and A. E. Schultz, Convention Secretary and Secretary of the Toledo Board of Trade.

CARL PAUKEN FOR SUPERS

CARL J. PAUKEN, Superintendent of The Rice Grain Company elevator in Toledo, is extending all grain handling and grain processing plant Superintendents of the sub-terminal and terminal class a most cordial invitation to meet with the entire Toledo area Supers at the Hotel Secor. "This should be extended to include all near-

THE PROGRAM

THE condensed program for the convention follows. (All meetings are to be held in the Commodore Perry Hotel, EXCEPT those separate conferences of the Tri-State Ohio, Michigan, Indiana Superintendents whose headquarters will be directly across the street at the SECOR HOTEL.)

Paul H. Christensen, General Superintendent of Van Dusen Harrington Company, Minneapolis, and President of the Superintendents' Society is scheduled on the G&FDNA "General Session" program on Monday forenoon, and R. B. Pow, Manager of the Reliance Grain Company, Ltd., Fort

Committee of the National Assn.

SEPTEMBER 15

- 8:00 a. m.—Breakfast meeting, Affiliated Association Secretaries.
- 8:30 a. m.—Breakfast meeting, Nominations and Resolutions Committees.
- 8:30 a. m.—Breakfast meeting (Secor Hotel), Society of Grain Elevator Supts.
- 8:30 a. m.—Breakfast meeting, Federation of Cash Grain Commission Merchants' Association. (For members).
- 9:00 a. m.—GROUP MEETING — Problems of Cash Grain Commission Men, J. F. Leahy of Kansas City, Mo., presiding. Speakers will include J. B. Hutson, president of the Commodity Credit Corporation, Washington, D. C.; E. S. Ferguson of Minneapolis, Minn., and Lowell Hoyt of Chicago.
- 9:30 a. m.—GROUP MEETING — Wage and Hour Problems. This is the official opening meeting sponsored by the Ohio Association, with their President, L. G. Bradstock, presiding. Speakers include Edgar Warren of the Wage and Hour Division, Washington, D. C.; A. H. Krueger of the Millers National Federation office, Washington, D. C.; L. C. Webster of the N. W. Country Elevator Assn., Minneapolis, Minn., and David K. Steenbergh of the Central Retail Feed Assn., Milwaukee, Wis.
- 9:30 a. m.—Annual meeting, Chief Grain Inspectors National Association.
- 11:00 a. m.—GENERAL CONVENTION SESSION. Vice-President S. L. Rice of the National Assn., presiding. Invocation by the Rev. Lincoln R. Long of Toledo; address of welcome from Mayor John Q. Carey of Toledo; response for the trade, by T. C. Crabbs

Christensen, Pow, to Address General Sessions

William, Vice President of the SOGES on the same program the following day.

SEPTEMBER 14

- 10:00 a. m.—Annual meeting, National Grain Trade Council.
- 10:00 a. m.—Annual conference, Affiliated Association Secretaries.
- 10:00 a. m.—Opening of registration for the convention.
- 12:00 noon—Luncheon, Affiliated Association Secretaries.
- 1:30 p. m.—Annual meeting, Terminal Grain Weighmasters National Association.
- 5:00 p. m.—Annual business meeting, directors of the National Association.
- 6:30 p. m.—Annual dinner for directors and past presidents of the National Association; this dinner honoring F. E. Watkins of Cleveland, Ohio, now chairman of the Executive

of Crawfordsville, Ind.; welcoming remarks by President L. G. Bradstock of the Ohio Assn.; welcoming remarks by Paul Christensen, Minneapolis, Minn., for the Society of Grain Elevator Supts.; the annual president's address by E. H. Sexauer of Brookings, S. Dak.

12:00 noon—Luncheon for visiting women, "Young Toledo on Parade." Luncheon to be followed by a bridge and theater party for women.

12:10 noon—Luncheon sponsored by the National Grain Trade Council, F. Peavey Heffelfinger of Minneapolis, presiding. Address to be given following the luncheon, by Philip Raymond O'Brien, president of the Chicago Board of Trade. A number of prominent guests and visitors will be introduced to this luncheon group.

2:00 p. m.—GROUP MEETING. Grain Warehousing Problems. Pres-

ident E. H. Sexauer, presiding. Leaders of the discussions will include J. E. Wells, Jr., of the USDA, Washington, D. C.; L. M. Betts of the Association of American Railways, Washington, D. C.; F. A. Theis of Kansas City, Mo.; S. W. Wilder of Cedar Rapids, Iowa; J. C. Crouch of Dallas, Texas.

7:00 p. m.—The annual banquet. The speaker will be Grove Patterson, editor of the Toledo Blade. Following the banquet and speaking, there will be a floor show, and then the annual dance.

SEPTEMBER 16

8:00 a. m.—Breakfast meeting, Affiliated Association Secretaries.

8:30 a. m.—Breakfast meeting, Nominations and Resolutions Committees.

9:00 a. m.—Conference (Secor Hotel), Society of Grain Elevator Superintendents.

9:30 a. m.—GROUP MEETING. Feed Trade Problems. E. C. Dreyer, St. Louis, Mo., presiding. Discussion leaders will include Austin W. Carpenter of Sherburn, N. Y.; W. D. Fleming of Minneapolis, Minn.; Ralph M. Field of Chicago, Ill., and Leon S. Jackson of Jackson, Ore.

11:00 a. m.—GENERAL CONVENTION SESSION. President E. H. Sexauer, presiding. The

Convention visitors should make their own hotel reservations. There will be a heavy demand for rooms in the headquarters hotel, but other good hotels are near.

While there will be "discussion leaders" in the group meetings, all grain and feed men are invited and urged to take part in the discussion from the floor.

MEMBERS OF THE TOLEDO MARKET

Archer-Daniels-Midland Company
Cargill, Incorporated
Continental Grain Company
Devore, H. W., & Co.
Forrester, G. R., Company
Hulburd Warren & Chandler
Kasco Mills, Inc.
Lansing Grain Company
Larrowe Milling Company
Mennel Milling Company
National Milling Branch of National Biscuit Company
Norris Grain Company
Northwestern Elevator & Mill Co.
Patterson Grain Company
Rice Grain Company
Schuster, L. J.
Sheets Elevator Company
Southworth Grain Company
Southworth, E. L., & Co., Inc.
Thomson & McKinnon
Toledo Grain & Milling Company
Toledo Soybean Products Company

A director and active committeeman of the Chicago Board of Trade, Mr. Dowse was both second and later first vice president of that institution. At the present time he is chairman of the warehouse committee and serves, as he has in the past, on some of the other important committees therein.

One of the most popular of the younger men on the exchange, Mr. Dowse has always been an active figure at various association's convention. He is widely known in the grain handling and processing industries.

W. D. Walker to Presidency

MR. WIRT D. WALKER, First Vice President of the Arcady Farms Milling Company, Chicago, was recently elected President. He succeeds to the office held for 26 years by Mr. Arthur Meeker, founder of the firm. Mr. Meeker was in turn elected Chairman of the Board.

Mr. Walker has taken an active part in the affairs of the American Feed Manufacturers Association for



invocation by the Rev. Russell Humbert of Toledo. Speakers will be the Hon. R. B. Pow of Fort William, Canada, and U. S. Senator H. A. Butler of Nebraska.

11:45 a. m.—Report of the Nominations and Resolutions Committee, as part of the annual business session of the membership of the National Assn. The last program event will be the election of officers.

12:10 p. m.—Luncheon meeting for newly elected members of the National Assn. Board of Directors. Meeting, Executive Committee, National Assn.

1:00 p. m.—The annual golf tournament. Inverness Golf Club.

1:00 p. m.—Sightseeing tour for women and for men not playing golf.

5:00 p. m.—"Get Acquainted" buffet dinner. Entertainment numbers during and after the dinner; presentation of golf prizes.

Visitors who pay the registration fee of \$3.50 will be given tickets good for all entertainment events.

Printed programs will be available at the registration desk in the Commodore Perry Hotel and will indicate room numbers where all meetings will be held.

A charge for meals will be made at the breakfast and luncheon meetings which are not part of the entertainment program. The discussions following these breakfast and luncheon meetings will be open to all convention visitors, without charge.

Dowse to Shellabarger

ORRIN S. DOWSE becomes manager of the Shellabarger Terminal Elevator, Salina, Kansas, on September 1st, according to announcement from the parent company, the Shellabarger Mill & Elevator Company.

Presently manager of the grain department of Fennner & Beane, which merged with Merrill Lynch, E. A. Pierce & Cassett, this month, Mr. Dowse formerly headed the Santa Fe Elevator Corporation, was vice president of the Stratton Grain Company, the John Kellogg Company, and the Armour Grain Company, all of Chicago.



many years, recently gaining considerable recognition for his outstanding accomplishments. He has been with the company since leaving the Army in 1920 after the first World War.

A familiar figure at all state and sectional grain and feed meetings, Mr. Walker is likewise a staunch supporter of the Superintendents' Society—of which his own Plant Manager, Gilbert P. Lane, is now First Vice President.

Associated with Mr. Walker as Directors are Messrs. J. B. Forgan, Lester Armour, R. N. Crawford and F. W. Adams.

Hold Barley Conference

OVER 200 attended the annual barley conference and grading school fostered by the Milwaukee Grain & Stock Exchange on August 5th. Barley acreage was reported to be decreasing due to low prices.

Outlining the problems of the maltster, James P. Hessburg, Froedtert Grain & Maltng Company, pointed out that maltsters of this country must meet the competition of Canadian processors. He enumerated size of berry, mellowness, color and cleanliness as grading factors the maltsters consider.

Clarify Seasonal Exemptions

FURTHER light is cast upon the seasonal exemptions under the Wage-Hour Law by the Grain & Feed Dealers National Association, to-wit:

THERE ARE two types of exemption available to certain portions of the grain and feed industry, permitting them to work longer hours without overtime payments during certain weeks in the year. The first of these (7-b-3) became effective June 14, 1941, upon notice of the Administrator, and covers the country, terminal, sub-terminal and mill elevator storage industries. The second (7-c) is inherent in the law, and requires interpretation for each individual firm.

(1) Details of the 7-b-3 exemption:—The Administrator of the Wage-Hour law has decreed (June 14, 1941) that the storing of grain, including flaxseed, buckwheat and soybeans, by country elevators, public terminal and sub-terminal elevators and mill elevators is of a seasonal nature. These branches of the industry are therefore permitted to extend their hours without overtime payment under the following conditions:

A: This exemption permits ALL employees in these branches of the industry to work up to 12 hours in any one day and 56 hours in any work-week, without payment of time-and-one-half for overtime, during not more than 14 weeks in any calendar year. The weeks do not need to be consecutive, but may be any weeks of the year, in any season.

B: It should be clearly understood that under this exemption, hours from 40 to 56 must be paid for at full-time hourly rates, and hours beyond 12 per day or 56 per week must be paid for at time-and-one-half rates.

C: All employees in these branches of the industry are covered by this exemption, regardless of their duties or the geographical locations of the elevators. This includes inspectors,

samplers, weighers, watchmen, office employees, etc., where their duties are connected with the storing of grain.

Employees in the elevators whose work during the week included other duties besides storing of grain, would not be "in the industry" for that week. (Example: An employee operating a grinder).

D: Still unsettled is the status of workers in the grain storage industry who are employed by exchanges rather than by individual elevator firms.

E: The same 14 weeks must be used for all employees in the same establishment. If even one employee is brought under the exemption during a certain week, that exhausts one of the employer's 14 available weeks at that place. It is therefore to the advantage of the employer to arrange employees' duties so they will all qualify for the exemption in the same weeks, wherever possible. (This refers to companies combining storage with other lines of business.)

If a firm has elevators in different areas, however, where the seasonal peaks may occur at different times of the year different weeks may be used under this exemption, to cover the needs of separate establishments.

(2) Details of the 7-c exemption—Entirely separate from the seasonal industry provision described above, the law also reads as follows:

"In the case of an employer engaged . . . in the first processing, within the area of production . . . of any agricultural or horticultural commodity during seasonal operations . . . the provisions (of the maximum-hours section) during a period or periods of not more than 14 work-weeks in the aggregate in any calendar year, shall not apply to his employees in any place of employment where he is so engaged."

In order to qualify for this exemption, an employer must meet the following conditions:

A: All the commodities processed

must come from farms in the general vicinity of the establishment.

B: The number of employees there engaged in such processing must not exceed ten.

C: "Processing," in this case, means the following:

1—For *grains*: Hulling, shelling, cracking, or grinding of whole grains, including the milling of flour.

2—For *forage crops*: Grinding.

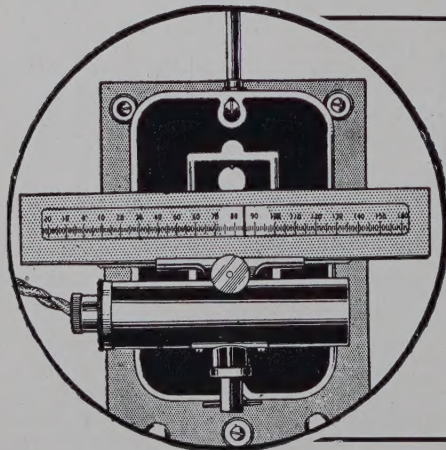
3—For *seeds, beans and peas*: Hulling; extracting oil from flaxseed or linseed.

It is obvious that certain country elevator and mill establishments having employees who are not exempt under the "country elevator" exemption, may still extend the hours of such employees under this exemption, without overtime payments. The extension here may be *without limit*, but the 14 weeks chosen by the employer must all be during the rush season or seasons.

If an employer meets the above qualifications, all his employees come under the exemption—not only the ten or less engaged in the actual physical processing operations, but also office workers and others employed at that same establishment in connection with the processing business. The test used by the Wage-Hour Division to determine which employees are covered is this:

"IT IS our opinion that only the employees who perform the operations described . . . or who perform operations that are so closely associated thereto that they cannot be segregated for practical purposes, and whose work is also controlled by the irregular movement of commodities in the establishment, are covered by the exemption."

Thus it is conceivable that certain employees may have a total seasonal exemption of 28 weeks,—14 weeks under this provision and 14 weeks as employees in the grain storage industry. Following is an example:



A HOT SPOT

Eventually means a HOT BIN.
Why take chances. Install a

Zeleny Thermometer System

and know the exact condition
of the grain stored in your Bins.

Ask for quotation.

ZELENY THERMOMETER COMPANY
9 South Clinton Street
Chicago, Illinois

"BLANK Elevator & Mill Co." operates plants in two towns, handling grain and soybeans and also processing soybeans. A clerk is employed in the office of the home plant, where the plant is located. This clerk is busy during the grain season handling storage accounts for both units, and later on is used only on the books of the processing plant.

Such a clerk would not come under any of the full-time exemptions to the Wage-Hour law. Yet he qualifies for a 14-week seasonal exemption as part of the country grain elevator storage industry, and another 14-week seasonal exemption if necessary as an employee in an establishment doing first processing.

Such dual cases undoubtedly will be rare, and the test used by the Wage-Hour Division will always be an appraisal of the actual duties performed by the employee, in deciding whether he is covered by any of the exemptions for that particular week.

It is advisable to keep records for all employees about whose exemption there is the least shade of doubt; it is NOT necessary to keep the records

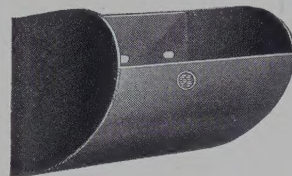
CALUMET CUP

"It's All in the Cup"

New Installations — Replacements

No Expensive Change in Present Equipment

Savings in Operating Costs



U. S. Pat. 1944932

Increased capacity with close spacing — Smooth easy pickup in the boot for 90% carrying capacity — Greater operating speed with perfect discharge.



Trade Mark Reg. U. S. Pat. Office

B. I. WELLER

SOLE OWNERS of the patent and
SOLE Licensed Manufacturers in the
U. S. under this patent.

220 W. Chicago Ave., East Chicago, Ind.

327 S. La Salle St., Chicago, Ill.

THE STRONG-SCOTT MFG. CO., LTD.
Toronto WINNIPEG Calgary
Licensed Manufacturers for the Dominion of Canada

R. R. HOWELL & CO.,
Minneapolis, Minn.
Northwest Distributors

for employees who are definitely and clearly exempt under the Act.

you were able to mix it to better advantage, both for grade and cleaning up broken room.

Should the balance figure on your "card" run out before the grain amount in your bin or vice versa, there can be two reasons for it. Either your mixer failed to give out the proper percentage, or you have made a mathematical error. If the former should be the reason, it can be corrected the next time. Having original carrier and balance of stock on hand on the same card, it is an easy matter to check against outstanding billing or warehouse receipts.

The above method is working very well in several elevators in Buffalo and the writer will be pleased to answer any questions pertaining to its operation.

Method of Having

Accurate Check at all times of amounts of Grain Stored in bins

By ED FRAUENHEIM, JR.
Buffalo (N.Y.) Forwarding Corp.

IN order for a grain elevator to keep running inventory it must have a very simple and flexible system of recording transactions of "inbound" and "outbound" grain. A "bin card" will meet these requirements. It will also be a permanent record, an aid in mixing, and will display complete origin of stock and grade allowing easy checking of outstanding warehouse receipts. It is designed to replace "blackboards" or "bin sheets."

The system works as follows:

All inbound grain is entered on a "bin card" as illustrated. A different color card may be used to designate the kind of grain or customers as the situation may warrant. The card will contain the following information:

1. Date. 2. Bin number. 3. Grade of grain in bin. (Card illustrated is a corn card.) 4. Amounts. 5. Carriers. 6. Name of customer. 7. Total in bin.

All outbound or run overs under shipments: 1. Date of shipments or run overs. 2. Carrier. 3. Amount in each outbound carrier. 4. Percentage of this bin in each of these outbound carriers. 5. Amount to be subtracted from bin. 6. Balance in store.

Now this "card" shows your inventory. It is a permanent record. You

don't erase it. You file it in its position on your bin board. Because you knew the amount and complete grade of your grain in your various bins

No. 116

FOR MEYER

DATE	GRADE	BUSH.	EX.	BALANCE
6 1	56# - 15.5 - 4. - 3. F.M.	2000	9566	3900
6 1	55# - 15.3 - 5. - 2. F.M.	1900	85700	7540
6 5	54# - 15.5 - 4.5 D. -	1750	98650	13427
6 5	55# - 15.2 - 3. - 1. F.M.	1890	66980	10867
6 6	56# - 15.5 - 5. - 2.2 F.M.	2000	6950	
6 6	55# - 15.5 - 5. - 1. F.M.	1987	5890	
6 6	54# - 15.4 - 4.5 - 2.F.M.	1900	6170	

RAIL

DATE	SHIPMENTS	BUSH.	%	BUSH.
6 7	57900	2000	50	1000
6 7	6290	1500	40	600
6 7	98700	1600	60	960
				2560

Priorities on Repair Equipment!

CAN'T get materials needed to keep your plant's machinery in repair, or to supply new equipment? Then advise your equipment firms as follows:

The Office of Production Management (OPM) is the agency which decides on priorities, and the detail is handled by various committees on a commodity basis. Thus there is a committee for sheet steel, another for electric motors, etc. Applications for priorities must come from individual equipment firms, and are considered individually by the proper OPM committees.

An industry-wide priority for grain plant equipment is out of the question at present, sets forth the Grain &

his application with OPM. (Address L. L. Needler, Office of Agricultural Defense Relations, Room 4603, Agriculture South, Washington, D. C. Send complete information and ask for help in getting the application through).

P. D. 1 applications should be mailed to OPM, Washington, D. C. A separate application is necessary for each type of material needed. Thus if Blank Equipment Company needs priorities in order to obtain 20 tons of sheet steel, 12 motors and 200 lbs. of copper tubing, it would need to make separate applications for each, because they would be handled by separate OPM committees. Each application should contain as much information as possible showing the demand for the particular equipment by grain handling and processing plants. Actual names of the plants ordering the equipment should be given if possible.

Each application must name the supplier from whom the Blank Equipment Company desires to purchase the material. OPM will want a guarantee that the supplier so designated actually has the material available. Thus if the Blank Equipment Company names a jobber, OPM will demand evidence that that jobber has the material and will hold it for the Blank firm until the priority can be granted. (Process usually takes several weeks, warns G&FDNA).

We suggest that your Society's secretary keep our Washington office informed on priority applications they consider vital to their members, writes Ray B. Bowden, executive vice-president of the G&FDNA.

Administrator Leon Henderson has promulgated a general order covering food processors (some 26 industries and services) providing that necessary materials and equipment in such industries shall be allocated prior to other competing civilian demands, and in the case of emergency maintenance and repair the priority shall be not only above all civilian requirements but prior also to defense requirements.

In assigning a special Priority Committee to consult with officials in Washington, the American Feed Manufacturers Association urges its members to communicate with Harold Rowe, care of Joseph L. Weiner, Assistant Administrator in Charge of Allocations, OPACS, 2501 Q Street, N. W., Washington, D. C.

Replacements are NOT construed to mean changeover in models, the introduction of superior type equipment to replace usable equipment of an older or inferior type or design, or a substitution more extensive than that which is necessary to replace the part or parts that are worn out, damaged or destroyed, according to Henderson's orders.

SIX-MONTHS DEFERMENT

Employees essential to your business will be deferred by your local draft board for a six-months period and under the Amended Selective Service regulations extensions can be granted.

BONUSES FOR NO-VACATIONS

The Wage-Hour Division has reversed a previous ruling and now holds that a bonus can be disregarded in computing overtime at time-and-a-half rates if it is compensation for a vacation and if the bonus approximates normal weekly earnings. Therefore you can now pay bonuses to employees who forego vacations without risking a decision that bonus payments should be counted in determining overtime payments.

MARITIME SAFETY LAWS

Maritime Safety Laws take precedence over Labor Board decisions, according to a circuit court decision. If upheld, you can successfully resist a Labor Board order if you can prove that the order conflicts with the MSL.

IMMUNE ON NEW CONSTRUCTION

Employees engaged in original building construction are not covered by the Wage-Hour Law, and you can escape regulations if you are engaged in the construction thereof.

OCCUPATION, NOT BUSINESS, GOVERNS

It is the occupation of the employee, not the business of the employer, that determines the applicability of the Wage-Hour Law. You cannot assume, because your company operates in interstate commerce and therefore is subject to federal control, that all your employees are therefore included under the law.

WAGE AND HOUR EXEMPTIONS

You can claim exemption from the Wage & Hour Law for executive employees, according to a ruling of a federal court, even though they are paid less than the \$30-a-week minimum for such employees set by the Administrator of the law.

DEDUCTIONS FOR DEFENSE BONDS

Where an employee consents, you can deduct from his or her wages sums for purchase of defense savings bonds without violating minimum wage provisions of the Walsh-Healy Act.

CANNOT CONTRIBUTE TO INSURANCE

One employer was found to have unlawfully contributed to the support of an inside union by contributing to the insurance plan,—since all covered employees were members of the union. Therefore it is well to investigate any proposed contribution to your employees' group insurance plan due to risking Labor Board action.



I read that every baby born already owes the gov't \$420; no wonder they yell.

Soaring taxes make soaring prices and they both make a sore consumer.

Feed Dealers National Association. The only possible avenue of relief now open to a grain handling and grain processing equipment manufacturer is through an application on Form P. D. 1. Filing of such a form is the essential first step to be taken in every case. Forms are obtainable at Federal Reserve Banks or from OPM direct.

The USDA has created the Office of Agricultural Defense Relations (OADR) under Governor Townsend, to work with OPM in speeding priorities for vital agricultural industries. Therefore, it is important for every grain plant equipment maker to notify OADR as soon as he has filed

NOT HOGGISH AT ALL

THE Bakery & Confectionery Workers Union, AFL Milwaukee Local 244, has extended its jurisdiction to include flour, grain and feed plants, as well as seed and pet supply stores, also "pure food" plants.

Some might consider this move just a step to increase the union's receipts, but if all the products involved were mixed into one pot the result would be about as botched a conglomeration as the whole idea is to begin with. Possibly the needle workers' or barflies' union might similarly expand, too, but probably the entire mess will fall of dead weight.

If these union dues-hogs were only smart they'd include all the beauty shop operators so they could control the color of the hair to be found in one's soup. That should have greater sales appeal!

THE LABOR LAWS

ATTEMPTING to persuade striking union members to individually return to work is an "unfair labor practice."

RESORT to courts cannot be taken for appeals for drafted men until they have been inducted into service.

DELAY by the Labor Board on a decision involving you, does not entitle you to reduce amounts of back-pay ordered by the Labor Board.

ADISSENSION of one or more members of an appeal board or a certified letter by a Government appeal agent stating that hardship will follow induction of the one seeking deferment, entitles men to take appeals directly to the President.

TRAINING courses for a more highly skilled occupation are not considered working hours and therefore you do not have to pay employees for time consumed in such courses according to the Wage-Hour Division.

INSISTENCE upon deciding by yourself the wage, vacation and bonus policies of your companies is a refusal to bargain and therefore a violation of the Wagner Act.

If You Had to Hire Yourself

*You raved because they put you out
And laid you on the shelf,
But tell me friend if tables turned
Would you employ yourself?
If you were boss and paid the wage
And had to watch the pelf
And hired the man who must make good,
Would you employ yourself?
Now take a look at what you are
And what you do each day;
If you were set to hire yourself
Pray tell, what would you pay?*

Our Spirits Never Down

"I HOPE your spirits are high and that you are getting a lot of good help on your fine publication."—Edward E. Frauenheim, Buffalo (N. Y.) Forwarding Corporation.

THERE WAS A YOUNG LADY FROM NIGER ...

Thus begins the sad, sad story of the lady who flirted with a tiger. And how the story ended everyone knows too well.

It isn't a good policy to go flirting with tigers, nor is it wise to make light of the dust in an elevator. That fine dust which readily suspends itself in the air in explosive concentrations is dangerous dust. One little spark, from tramp metal in the grain stream, from static, from friction ...

ROBERTSON SAFETY VENTILATORS remove fine explosive dust by a continuous gravity action and, in case of a blast, minimize destruction and the danger of a second explosion by continuously venting gases, flames and pressure.

ROBERTSON CAPACITY BIN VENTILATORS are guaranteed to not offer more than .0026 water gauge resistance and not less than 324% free area v.s. stack area. They prevent the stirring up of dust when the bin is being filled or emptied by providing BALANCED ventilation.

ROBERTSON PROTECTED METAL is a "service-proven" roofing and siding. It has great structural strength in its steel core, and is weather proof and corrosion-proof by virtue of its three factory-applied protective coatings.

Write today for information

H. H. ROBERTSON CO.

Farmers Bank Bldg.

Pittsburgh, Pa.



Nation's Wheat Crop Tops 22-Year Record—Third Largest in History

THE largest wheat crop in twenty-two years, and prospects for the best per acre yield of corn in history is today's "current history," which is appalling many and giving others the shudders—all depending on which side of the fence they sit.

Third largest in history, this year's wheat yield comes within 952 million bushels of the 1919 crop—the second largest—and within one billion bushels of the banner year of 1915. The production of all crops will probably exceed that of any year other than 1937, official reports state.

On August 11th the USDA boosted its July 1st estimates for most other crops, as well, and indicated that on the basis of the August 1st conditions there will be a record supply of foodstuffs for next winter. (No reference was made who this record supply might be for,—the human kingdom or the bug world.)

Total wheat production was estimated at 950,953,000 bushels compared with 816,698,000 last year. (Winter wheat is placed at 684,966,000 bushels and Spring wheat, including Durum, at 265,987,000.) Average 10-year production has been 747,507,000 bushels. The corn yield, expected to be the largest since 1937, was placed at 2,587,574,000 bushels compared with 2,449,200,000 in 1940.

1,346,000,000 WHEAT FOR STORAGE

THE nation will go into the winter with approximately 1,346 million bushels of wheat in storage of which

the nation will consume but 653 million bushels—less than half of the total supplies.

ESTIMATES OTHER CROPS

THE department estimated production of other foodstuffs as follows, in bushels:

	1941	1940
Oats	1,148,162,000	1,235,628,000
Barley	346,057,000	309,235,000
Rye	46,462,000	40,601,000
Buckwheat	5,614,000	6,350,000
Flaxseed	30,711,000	31,217,000
Rice	58,970,000	52,754,000
Beans (edible) ..	18,728,000	16,074,000

6,500,000,000 BUSHELS ROOM NEEDED

THESE swollen yields have almost filled to overflowing the commercial storage facilities—in spite of the rapidly expanded farm storage "tin-cans." Officials estimate that all interests will have to provide storage space for more than 6,500,000,000 bushels of grain—over 300,000,000 bushels more than last year.

National storage space in all commercial avenues, including idle plants, approximates 1,550,000,000 bushels, which is being enlarged by over 75,000,000 bushels through construction already under way or about completed. The need for still further commercial storage is obvious from the record carry-over topped off with the current bumper crop,—to say nothing of the Spring wheat, corn and soybeans yet to arrive.

CORN GRIND UP

7,850,233 BUSHELs of corn were ground for domestic use by

eleven refiners of starches, syrups, sugars and other derivatives of corn during July, according to the Corn Industries Research Foundation—a considerable increase over average years. Corn ground for export would bring this figure up even higher.

Approximately 40% of the corn reaching primary markets (or about 20% of that sold off the farms) is consumed by the corn refining (or wet milling) industry, according to the Bureau of Foreign & Domestic Commerce.

Carloadings Above Average

CARLOADINGS of grain and grain products continue well ahead of previous years, according to official reports from the Association of American Railroads, Washington, D. C. At the same time the supply of empty box cars is ample, currently reported at from 2,369 to 12,835 per week during the period covered below. The average box car holds the equivalent of 2,000 bushels of grain—considering the tonnage of grain products shipped as offsetting the decreased bushelage for oats and barley. Tonnage of late is as follows:

	1941	1940	1939
Aug. 16	44,375	43,344	43,965
Aug. 9	45,887	41,386	40,103
Aug. 2	46,142	40,690	42,270
July 26	55,277	46,024	40,822
July 19	61,396
July 12	*62,697

*Season's high to date.

Cumulative loadings since January 1st for the same period show an equally striking movement record, to wit:

	1941	1940	1939
Aug. 16	1,269,935	1,154,187	1,193,534
Aug. 9	1,225,560	1,110,843	1,149,569
Aug. 2	1,179,673	1,069,457	1,109,446
July 26	1,133,531	1,028,767	1,067,196

FORT WILLIAM-PORT ARTHUR CLEARANCES

217,439,003 bushels of wheat, including 7,133,115 bushels of durum, composing 676 cargoes, cleared from the twin ports of Fort William and Port Arthur during the 1940-41 crop year, state the Board of Grain Commissioners. This compared with 226,365,811 (8,970,031 durum) bushels handled last crop year. All but 64 cargoes were carried in Canadian bottoms. U. S. ports received 49,347,181 bushels, chiefly Buffalo.

Coarse grain tonnage this year compared with last was: oats 13,018,645 bushels against 18,630,493 last year; barley 9,971,860—15,446,834; rye 4,297,261—5,272,951; flaxseed 1,612,798—678,066; plus small lots of barley malt, screenings and oat groats.

PATERSON BOATS TO OCEAN TRADE

TEN of the Paterson Steamship, Ltd., line of 33 vessels in lake commerce will be transferred to ocean service before the end of October, it was announced in Fort William this month.

GRAIN EXPORTS UP

CARLOADS of grain for export unloaded at Atlantic, Gulf and Pacific ports during July this year totaled 6,273 compared with 2,260 in the same month last year. At Portland, Maine, 88 cars of grain were unloaded for export compared with none last year; at Boston none compared with 82 in '40; at New York 1,462 compared with 313; at Philadelphia 728 cars compared with 358; at Baltimore 2,958 compared with 231; at Norfolk 125 compared with 222 in '40. The movement of grain through Gulf ports this July was 462 cars compared with 803 last July, and through Pacific ports 450 cars this past month compared with 251 a year ago.

FOOD FOR BRITAIN

FIVE hundred thousand dollars of food supplies a day are going to Britain, and the rate of shipment is expected to increase steadily.

AUTO FUEL FROM CORN

A SEMI-COMMERCIAL plant for production of motor fuel from farm products has been practically completed at the USDA's Peoria Research Laboratory. This so-called "pilot" plant, into which the chemists and engineers have incorporated all the latest improvements in equipment and processes available, is to be used for large-scale testing of promising developments. It is capable of producing 500 gallons of corn and potato alcohol daily.

INDUSTRIAL USES FOR WHEAT IMPRACTICAL

THE Hon. Mr. J. G. Gardiner, Minister of Agriculture, stated in an interview, as reported in the Winnipeg Free Press of Saturday, April 26th, as follows:

"Discoveries by research workers of other uses for wheat, such as the production of gasoline and alcohol, have not been financially practical. 'Wheat would have to be sold at 30 cents a bushel before substitute uses would be profitable,' Mr. Gardiner said."—Winnipeg Free Press.

DOES FRANCE GET WHEAT?

ALTHOUGH two cargoes of American flour were permitted entry to France and agreement had been tentatively reached for shipment of American wheat to France every month, the recent European developments with regard to Vichy's co-operation with the Hitler government will put clamps on France's stomach once again.

France's wheat crop for 1940 was only one-half of her normal needs. Still less has been sown for 1941. Fertilizers are lacking; gasoline shortage will greatly impede harvest activities; over half of her cattle have been taken by the Germans and fodder is lacking for the rest.

Sugar crop is less than half of normal production. Fats, binder twine and many other agricultural and food product necessities are absolutely lacking. La Belle France will be rather skinny when Hitler gets through with her.

"DEMOCRACY IN ACTION"

"TWO-THIRDS of all the families in this country are living on inadequate diets," according to AAA Administrator R. M. Evans in his remarks captioned 'Democracy in Action,' before the AAA committeemen in St. Paul on March 14.

"To promote the general welfare and to provide for the common de-

fense, we should lose no time arranging things so that all families can earn enough purchasing power to buy the food and clothing they need. We are moving in this direction, but we still have a long way to go for full employment and adequate income to provide the kind of living standards which only the United States of America can afford for all its citizens."

Our Enlightened Government

ONCE there were two donkeys tied to each other with a ten foot rope. On one side of where they stood

EFFECTIVE WEEVIL CONTROL THROUGH 1 TIME TREATMENT

The consistent experience of users has shown that grain having the proper moisture content for storage (say 13 to 13½%) may, following the inexpensive Larvacide treatment, be held in storage for six months (and often longer) without expectation of further insect damage.

MOTHS, TOO, ARE EFFECTIVELY CONTROLLED

by sprinkling or spraying surfaces of standing grain with Larvacide.

Full directions in Larvacide literature which will be mailed you FREE on request.

Using LARVACIDE means

Larvacide

CHLORPICRIN

is a tear gas chemical, shipped in liquid form. Cylinders 25-180 lbs. and 1 lb. bottles each in safety can, 6 and 12 to wooden case. Larvacide is stocked in major cities.

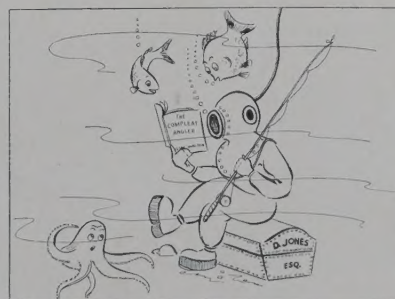
INNIS, SPEIDEN & COMPANY

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**LESS TIME ON INSECT CONTROL—
MORE TIME TO GO FISHIN'**

LARVACIDE, the ORIGINAL Chlorpicrin Fumigant, is Guaranteed over 99% Pure

together, approximately eight feet away, was a pile of hay. On the other side of their position, also approximately eight feet away, was another pile of hay. One donkey started for one pile of hay and the other for the other stack. The rope between them tightened up and it developed into a tug of war. Well, they kept pulling and pulling for so long that they finally both fell over and starved to death.

The government wants to hold prices down—so it subsidizes the farmers, lets the unions run away with wage scales, and plans taxing staple commodities to death.

Also in order to "preserve the American way of life," the government is "soaking the rich" and saying "money means nothing in time of war."

Furthermore, in order to stop the Nazis, we are shipping machine tools to Russia and quite regularly continue exports to Japan. Ho-hum, something ought to be done about this.

SOME GIRL

The following classified advertisement was clipped from a recent edition of the Chicago Tribune:

Miscellaneous

BRAVE GIRL WANTED

to stand against a 48 inch beard and allow Rajah Raboid, sensational mind reader, to throw knives around her body with both his eyes sealed. Applicants apply to Roosevelt Hall, top floor, State-Lake Building, Wed., Aug. 6, at 12 noon. Easy work. Excellent salary and chance for advancement.

(Advancement to where, we wonder.)

More for Your Money

Prepared by the

Bureau of Research and Education, Advertising Federation of America

MONEY is important only for what you can buy with it. What you buy is important only for the satisfaction it gives you. And greater satisfaction is the only thing that is important in getting more for your money.

That is why the service of advertising is so helpful. Merchants and manufacturers advertise primarily to sell their goods, but in the long run no advertising can be successful unless it helps the consumer to get more for his money. The most important business job that each of us has to do, next to earning an income, is to buy the best possible living which that income can afford.

Wherever we go, at any time of day or night, we constantly see and hear many kinds of advertising. On all sides, industry offers its wares, presenting an enormous show window of everything that money can buy. Nothing is overlooked. Beans, movies, garters, automobiles, oranges, refrigerators, fishing poles, asphalt paving, and correspondence courses. You decide what you want and spend your money accordingly. Advertising gives you a world's fair in motion, a continuous parade of merchandise. The more you see of it the more you know about the world's goods and the better you know how to make your material life a happy one.

By serving the interests of consumers everywhere, advertising does a very important job for industry. It is the only means by which the huge quantity of goods produced today can rapidly be moved to market. Advertising is the most economical

and most efficient part of the selling process and if it were to be discontinued we would have to slip back to a much slower pace with a far smaller volume of goods to divide among us.

Without this modern high-speed marketing machinery Ford, Chevrolet, and Chrysler automobiles would cost much more because fewer would be made. The same is true of fountain pens, radio sets, and frozen foods, all of which owe their wide distribution to advertising. Thus advertising, with all its helpful information, costs the consumer nothing, and brings many articles within reach of the common man's purse.

Advertising has also put identifying trade-marks on food, feed, flour, grains, clothing, and nearly everything else you buy, standardizing the product of each advertiser. If you like a certain brand you buy it again, and if you don't like it you avoid it—the trade-mark tells the tale and advertising puts the trade-mark on the goods. If you want to know what you're getting, you buy a well-advertised product, made by a manufacturer in whom you have confidence.

Because there is so much advertising in this country, we are the best-informed people in the world on what there is to buy and where to buy it. Because advertising is an economical salesman, we can buy things cheaper and the country is more prosperous. Because advertising identifies products, we can buy with greater confidence in their quality.

Advertising is one of our greatest helpers in the important problem of getting more for our money.

180,000 Sq. Feet of Surface renewed with GUNITE and SURFACITE!

THE KELLOGG CO.,
BATTLE CREEK, MICH.



All the cracks in this fine-looking elevator were repaired by forcing tough-bonding Gunite into them at a high pressure.

Then the whole structure was thoroughly waterproofed with an extra thick coating of Surfacite.

For a better than new job, write

JOHN D. BOLTON
20 N. Wacker Drive - - Chicago



Pneumatic Unloading

By FRANK L. NEILSON

Past President Soges,
Vice-President, Cargill, Inc., Minneapolis

THE ports of Europe have employed pneumatic unloading of grain for a great many years, and I think are much farther advanced in the knowledge of its operation than we are in this country. The European operators have faced an entirely different problem from the rest of the world, because they have always been importers of grain and not exporters. This necessitates their unloading ocean going vessels, which are built to withstand rough ocean passages and consequently are braced on the inside with steel members and between decks, making it extremely difficult to work a marine-type leg in them.

Necessary Invention

THEY say necessity is the mother of invention, and I think these people, faced with the problem of getting the grain out of ships and knowing there was small chance of changing the design of the vessels, started thinking of other ways of unloading them. Today, most of the grain unloaded from ships in Europe is done by the pneumatic principle.

Due to tide conditions, lack of dock space, and the fact that a large portion of the shipments are (or at least were) made in passenger carrying boats which would not tie up at an elevator berth, the air unloading machinery in many cases has been mounted on large barges and the grain is unloaded from the ocean carrier into smaller grain barges.

Several installations of pneumatic machinery have been made in this country, but very few are working today. Whether this is due to the inability of the operators or poor design, I do not know.

When the problem of unloading barges confronted our company, we tried to analyze the work involved from an efficiency standpoint and dispatch to the vessels. From the experiences we have had with a marine leg in unloading lake boats, we knew about 70% of the grain would flow to the leg and 30% had to be moved to the leg by hand or power shovels. Knowing the barge was much shallower than a lake boat, we supposed the amount of grain that would flow would be materially less, and on making a layout of a barge found that

about 30% would flow to the leg and 70% would have to be shoveled. This led to an investigation of the use of air for this work.

Rotor or Reciprocating?

WE found that in Europe most of the pumps were of the reciprocating, cylinder and piston type driven by Diesel engines. In this country, however, the rotor or positive pressure type of exhaustor is being used most.

The rotor exhaustors seem to perform very well, but the horse power mounts rather rapidly as the wear increases the tolerance between rotor and barrel. We have tried to avoid this difficulty by using a centrifugal or turbine type of exhaustor, and we have been very much pleased with their performance so far.

The centrifugal exhaustors or air compressors used in our plant were manufactured by the General Electric Company. They were designed to create a suction pressure of about 3.5 pounds gauge while handling 5000 cubic feet of air per minute exhausting into the atmosphere. Three and a half pounds pressure or vacuum corresponds to about 7.15 inches of mercury or about 97.5 inches of water.

Not Like Dust-Collecting

AN ordinary dust collecting fan will create a suction pressure of only 10 inches of water; thus we see that the suction pressure used for handling grain pneumatically must be about 10 times as great as that used for dust collecting systems. The ordinary paddle wheel fan will not create any such pressure and therefore we must look elsewhere for a type of machine suitable for this service.

The centrifugal compressor or exhaustor has been used for many years in compressing or exhausting air and gas in the blast furnace and gas industry and recently in the pneumatic conveying of ashes from boiler plants, but had not been tried out in America for the pneumatic handling of grain until installed in Albany.

The design of the compressor is simple and consists of a carefully shaped impeller about 30 inches in diameter and mounted on the extended shaft of a 3600 R.P.M. motor. The tip speed of these impellers is about

27,000 feet per minute, or travels at about 5½ miles a minute. They must be very well balanced to stand this speed and be free from vibration.

The impellers used in our exhaustors are made of aluminum alloy. They are surrounded in a welded steel plate housing with a rather narrow discharge orifice around the periphery of the impellers. The shape of this orifice and the directing vanes placed therein all combine with the shape and speed of the impeller to make this type of machine a success in handling large volumes of air under pressure or vacuum.

Use Two-Stage Unit

A STANDARD single impeller exhaustor of this size will handle 5000 cubic feet of air against a pressure of 1.75 pounds, but since 3.5 pounds suction was wanted two of these standard machines were used, mounting one on each end of a double shaft extended motor and connecting the exhaustors in series by leading the exhaust of one into the suction of the other, thus making a two stage unit.

Should the exhaustor be allowed to handle free air with no obstruction such as grain at the inlet pipe, the volume of air through the system will increase to about twice that required. Therefore, on the discharge of the exhaustor are provided automatic control equipment for regulating the air flow so that when little grain is being handled, the machines will not overload.

The unloading system at the Port of Albany consists of eight units, each unit having a rated capacity of unloading 2500 bushels of grain per hour. The piping at the nozzle is 12 inches in diameter, and it is increased to 16 inches between the collector and the exhaustor. The collecting nozzle consists of two pipes, the inner one 12 inches in diameter and the outer one 16 inches in diameter.

The outer sleeve or skirt extends approximately two inches below the inner pipe and the complete nozzle is so arranged that if it is buried in the grain there is still means for air to enter the inner pipe through the passage between the two pipe walls. This is necessary, as it is practically impossible for the air to get into the pipes between the kernels of grain.

Vertical Rubber Conveyor Section

THE grain is then conveyed vertically through a 14 foot rubber section. This rubber section is fast-

Defense Savings Bonds and Stamps

HELP Uncle Sam out once more by buying Defense Savings Bonds and Stamps! On top of being a good investment, it's patriotic. Your postoffice can sell you bonds or stamps in denominations from 25c to \$10.00.

ened to a metal pipe which allows some movement of the nozzle. The metal pipe is telescoping and so arranged that the nozzle can be let down in the boat as the grain is taken out and so you can lift the nozzle out of the empty boat.

The telescoping pipe is operated by motors located on the booms. They are of the reversible type, two cables running from a drum on the motor to sheaves located on the lower pieces of pipe. This motor is operated with remote control by a man located in the barge. By pressing a button he may either raise or lower the nozzle and it is very important that the nozzle is kept at the proper depth in the grain at all times.

The nozzle works most efficiently when buried to the top of the outside skirt, and in some instances the grain is even allowed to pass over the top of the skirt. The vertical pipe is hung on a boom, which allows it to be swung onto the dock when not in use and also so it can be moved about in the boat.

The grain is lifted vertically about 60 to 70 feet and then along horizontally to the first collector, where the air stream is expended and the grain allowed to drop out of suspension.

Dust and Grain Handled Alike

THE grain is taken from the collector by a rotary type discharger of the self-sealing type located directly under the collector. It has a rotor with compartments in it turning in a case with very small clearance between case and rotor, and as one rotor compartment fills, another empties, and in this way the vacuum is never lost. However, when the grain is removed from the air stream in the first collector, there is still quite a lot of dust left, so it is put through another collector, where the air stream is again expended and the dust removed, the dust being taken from the collector in the same manner as the grain.

Directly under the discharger is located a conveying belt, the dust being placed on the belt first and the grain on top to keep the dust from being blown off as it is carried to the leg. The air, after going through the second collector, is now comparatively clean as it enters the exhaustor or compressor.

Oats the Fastest

ON test runs we have conveyed as high as 4200 bushels per hour per unit. There is only a slight difference in handling different kinds of grain, such as wheat, corn and rye. We have found that the fastest grain to handle is oats.

The advantages of the Pneumatic System over Marine Legs:

First—Simplicity

Second—Adaptability to all types of boats

Third—Low labor costs

Fourth—Space requirements

The entire pneumatic system is very

Sabotage Through Fire

By E. P. COFFEY*

Chief of the Technical Laboratory,
Federal Bureau of Investigation

FIRE as a medium of general sabotage and aimed at the destruction of the national defense program must be considered a very serious possibility. It is not the desire of the F.B.I. to stir up hysteria on the subject, but the situation must be regarded in a calm, businesslike way and the existence of the threat must be realized. Even if this threat should never manifest itself, we must be prepared.

Arson as committed by the saboteur is more serious, more dangerous and more devastating than the ordinary commercial type of arson that we seek to combat in peace time. The saboteur is the agent of a foreign government and has at his disposal resources, information, and funds far greater in amount than any commercial arsonist. His motives are more malicious and destructive. The fact must be faced frankly that the saboteur in the form of an enemy agent is

Not Too Early

IT'S NOT too early to begin schooling the thoughts of your crews towards Fire Prevention Week—October 5th to 11th. Poster and other campaign material will be made available to those interested.

more dangerous than the usual peacetime arsonist.

There are, therefore, two conflicting problems which confront the dictator nations, and one possible answer may be sabotage so carefully concealed, so carefully planned, that it does not appear to be sabotage at all. Sabotage by fire is one of the most plausible means of accomplishing that end.

Activities of the Saboteur

AN instance which was not the work of saboteurs shows the possibilities in connection with the plant survey work of the Federal Bureau of Investigation. In inspecting a pier and wharf area in Hoboken on which the owners had made careful plans for fire protection, 97 water barrels were found, each filled to the brim. Above

simple and there are few moving or wearing parts. This is reflected in the low maintenance cost. The only moving parts are the motors on exhausters and the motors operating the telescoping pipes at the intake, and the motors and rotary valve on the dischargers. The only wear on these parts should be the bearings and these are of ball bearing type and should have very long life.

each was a bucket marked "Fire." Had a fire occurred, even a small one, the entire structure might have been destroyed. This company had had some trouble with mosquitoes, and the exterminating company which had been called in solved the problem by pouring five gallons of No. 2 fuel oil into each of these 97 barrels. Only through constant inspection and checking can such things be detected. The system was perfect to begin with, but did not remain so.

How will the arsonist get into plants? Vulnerable spots must not only be checked, but also every possible method by which instruments of arson might be brought into the plant must be considered. The arsonist can equip himself with the necessary implements of fire in very compact and easily hidden form. In the last war, the favorite method was the use of small incendiary devices composed of two sections filled with chemicals separated by a thin metal partition. When the latter had been eaten through by chemical action, the substances mixed and a fire resulted. Its starting action was timed accurately hours in advance. The thickness of the partition governed the starting time, which made it especially easy to divert suspicion. The fire would appear to be entirely accidental since it would occur in the dead of night when nobody was in the plant.

Instruments of destruction taken into plants in lunch boxes, packages, automobiles or trucks, or sent in shipments as merchandise are entirely within the realm of possibility. In the Wall Street explosion, for example, a wagon bearing explosives was driven to the proper spot and set off.

Within the plant the disloyal worker has many opportunities open to him for sabotage. He can cause machinery or boilers to overheat until the point of protection is passed and fire results. He can cause numerous accidents, all of which accomplish the purpose he seeks of interfering with the vital defense program, but which are covered up by the fact that he is an employee.

The Threat of the Infernal Machine

ALLIED to the threat of fire is another threat of the saboteur, the "infernal" explosion machine. Much has been said about the correct method of handling such instruments and it seems by this time that there actually is no correct method. Many people have been killed trying to find one.

When a suspicious package of any sort is reported, the first consideration should be the protection of human life. There is no formula for handling bombs and infernal machines. They are made by crackpots whose plans are not known; they are likely to go off when least expected. The only safe rule is to leave the suspected bomb alone until all persons in the area are out of the way, and then,

the bomb should be destroyed if possible where it is, either by rifle fire or by setting fire to it. This brings up the question of property damage, which may be great, and sometimes the bomb must be moved in view of its surroundings. Sandbag barricades will, however, do a great deal to lessen the force of the explosion. Also, the force of the explosion can be guided in a direction which will hold damage to a minimum. Another thing to be considered before destroying a bomb where discovered, is the possible damage which power lines, water lines, and steam lines may suffer.

The usual advice for disabling such bombs is to put them in a barrel of motor oil. The most recent advice is that light fuel oil is better than motor oil. This may be good treatment for the bomb, but it raises the question: Who is going to put the bomb in the oil? A bomb should never be handled unless it endangers human lives. Only two or three cases are necessary to prove this point. In Milwaukee twenty years ago, a bomb was found and carried into the police station where it remained for several hours. When the shifts were changing the sergeant at the desk told his men, "If you want some experience handling bombs, there's one in the property room. Take a look at it." Eleven were killed when the bomb went off.

A bomb was discovered in the post office of a city in eastern Pennsylvania, and officials correctly sent for a bomb expert having special implements and equipment. His principal piece of equipment was an armored steel shield which he placed before him. It had a periscope device to enable him to peer over the top and manipulators for handling the bomb. In spite of these precautions the bomb went off and drove the shield against the wall, crushing the bomb expert to death.

A bomb was found in the British Pavilion at the New York World's Fair last summer and was known to have been in the building for at least

On Your Calendar

Sept. 14-16. Grain & Feed Dealers National Association convention, Commodore Perry Hotel, Toledo, Ohio.

Sept. 14-16. Society of Grain Elevator Superintendents Tri-State (Ohio-Michigan-Indiana) Joint Meeting with above "parent" body. Headquarters and separate sessions in Secor Hotel, Toledo, Ohio.

October 6-10. National Safety Congress, Stevens Hotel, Chicago. Special sessions of Food Section October 6-8.

April 2-3-4. Society of Grain Elevator Superintendents' annual conference, Omaha, Nebr.

Many a New Elevator WILL BE BUILT THIS YEAR AND MOST OF THEM WILL USE



Trade mark Reg. U. S. Pat. Off.

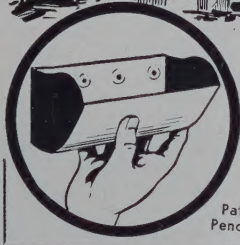
If you contemplate building or remodeling, it behooves you to take advantage of all that is modern and efficient in material handling equipment. As for buckets, "Nu-Hy's" will outperform any other bucket and should be definitely specified. They are shaped to permit closest possible spacing and they carry more at any speed. This increased capacity and efficiency will pay big dividends when your house is pushed for capacity.

10% TO 50% GUARANTEED CAPACITY INCREASES

**CLEAN - CUT
STREAM-
LINED
CONSTRUCTION**
offers perfect scooping into grain, transforming impact surges into smooth-flowing pulsations.

are common on most installations, yet we have gone as high as 100% on numerous occasions.

Send for Form No. 76 which will enable us to make an analysis of your situation and offer our guaranteed recommendations. This places you under no obligation.



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SCREW CONVEYORS



ELEVATOR BUCKETS

TRADE MARK REG.

U.S. PAT. OFFICE

thirty-six hours. This particular bomb was of the clock mechanism type which bomb experts believed was harmless after a twenty-four hour period. Nevertheless, it did explode after it had been carried from the building, and lives were lost.

There are two types of infernal machines, the time bomb, actuated by clock mechanism or by acid eating through partitions, and the trigger bomb, discharged by disturbance of the trigger in any one of many different ways. But these machines are all made by crackpots, and one cannot foretell what will happen. By placing them in oil, particularly light fuel oil which will disable the clock mechanism and stop the clock, explosion may not take place.

Plant Surveys

THE Federal Bureau of Investigation, under the direction of the President, is continuing making surveys of manufacturing plants engaged in federal defense contracts. In doing this the F.B.I. points out the spots in the plant which seem to be particularly vulnerable to sabotage, fire espionage, etc. In that connection, many such vulnerable spots have been discovered, and it has always been found that manufacturers are more than eager to cooperate, to seek the suggestions of the Federal Bureau of Investigation and to carry them out whenever possible. The Federal Bureau of Investigation is not in a position technically to make detailed corrective recommendations. Rather the weak points can be determined, but it is left to the plant's own engineers to solve the problem.

Some things in all plants are well protected. Plants, however, frequently

overlook the protection of irreplaceable models and drawings from the saboteur who would steal them for purposes of his own. Plants are frequently well protected inside, but not outside. Sometimes they are not fenced; sometimes they are well fenced, but no attempt is made to control the people who enter. We are too hospitable and welcome every stranger within our gates, and give him the freedom of the plant. The selection of personnel should be most carefully considered, and the entry and exit of the personnel should also be carefully checked. If you can get the personnel interested in problems of this sort, if you can get them enthusiastic, they will frequently suggest things which you would hesitate to demand. If employees make suggestions, they will frequently inconvenience themselves to carry them out. But most of all, all systems will fail unless they are inspected and inspected time and again until the defense emergency is passed.

*Before the National Fire Protection Association.

ANNOUNCES NEW SOY PAINT

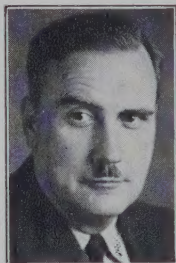
A NEW and quite revolutionary water-thinned wall paint which utilizes soybean protein as a binder was just announced by The Glidden Company under the trade-name of "Reflect-O-Lite."

Soybean protein is a truly remarkable new product extracted from soybeans in Glidden's Soybean Processing Plant in Chicago. Its use as a binder makes possible the introduction of many desirable qualities in the new paint. No sizing is required, and the product has other economical factors.

Whole Kernels

He Started as Sampler

ANNOUNCEMENT is just made by Van Dusen Harrington Company, Minneapolis, of the appointment of Paul H. Christensen as General Superintendent of their terminal and sub-terminal grain handling properties. Mr. Christensen, it will be remembered, was only recently elected President of the Society of Grain Elevator Superintendents at its Minneapolis convention—having been First Vice President last year.



Starting at the tender age of sixteen, young Paul sampled half days during high school at a Minneapolis terminal, spending the next two "teen" years as a millwright at the old Northwestern Elevator (which has since burned). Following that our adolescent youth became foreman at the Merchants Elevator for four years, stepping up to a superintendent's post—soon after he was old enough to vote—at the Soo Line Terminal the following twelve months.

Feeling the need of a thoroughly rounded out experience, our newly married ambitious young man scampered off to manage two farmers' elevators for the succeeding five years, only to come back to Minneapolis as

weigher in his first love—another of the terminals there—the Republic. After some fifteen years at this and kindred posts of responsibility, Mr. Christensen served as Superintendent for five years. Now he has eight terminals in Minneapolis alone to look after.

Modest, retiring, and unassuming, Mr. Christensen is known among Superintendents to be thorough, painstaking and far-sighted. In all his association work, both in the Minneapolis Chapter of the Superintendents' Society as well as the parent body, he has brought exceptional credit to both his firm and himself. "Having active Chapters to help, to say nothing of several hundred members scattered from coast to coast, isn't exactly the same as operating terminal elevators," he says, "but they're both fun."

His many admiring friends predict no limit to his probable ascension throughout the coming years.

CONVENTION PAID BIG DIVIDENDS

"IT GOES without saying we had an unusual opportunity at our recent Minneapolis convention, and I know well it was time and money wisely spent.

"We always come away from our SOGES conventions with more ideas and a wider feeling for the other fellow than we had before we went," writes Herbert C. Brand, Quaker Oats Company, Cedar Rapids, Ia.

DID YOU HEAR BOOST?

GRAIN from the field to the grocery went "on the air" on August 2nd when the National Broadcasting Company put on their annual "wheat festival" program demonstrating the importance of the "staff of life" in national defense.

Farmer Emmett Blood allowed as how raising wheat was no child's play, particularly with air-conditioning systems lacking in the field. The sweet "purr" of wheat pouring from a freight car into the elevator of the Kansas Milling Company, Wichita, followed by educational talks from "America's Milling Center," Buffalo (according to NBC), topped of the program.

Mr. Ward Magill, President of the Millers National Federation as well as of the Kansas Milling Company, explained the importance of flour after Francis McKown, Wichita grainman, told how the grain trade did its part in providing the nation with bread grains.

MEAN TO THE CORPS

Once there was a mean infantry officer.

In fact, he was mean to the corps.

ANTICIPATION VS. REALIZATION AGAIN

Howard Coonley prophesies that the executive of the future will be rated by his ability to anticipate his problems rather than to meet them as they come.

A LITTLE DIFFERENCE

Rubbing up against a hard proposition will either polish a man up or finish him off.—The Chatter Box.

BUSIER THAN BEES. OR IS IT ANTS?

"MONDAY, August 18th, was our banner day," relates Ed Raether, Manager of the Sampling Department of the Minneapolis Chamber of Commerce. "We had 2,834 road cars and 1,405 re-samples, making a total of 4,239 cars sampled that day. Of the 2,834 road cars we had 781 cars of flax.

"The elevators are full, or very nearly so, and we are averaging over 1,200 road cars a day. This has been a very busy place since the last of May, but during the past month everyone has been so busy I have hardly heard from a single soul," said genial Ed,—who also is Superintendent of the Chamber's buildings. (He has some 22 elevator legs to supervise in the three buildings—now figure that one out.)



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Resume Fall Meetings

MONTHLY meetings of the Minneapolis Chapter will start again the last Tuesday of September, advises Paul H. Christensen, Van Dusen Harrington Company, President of the Superintendents' Society.

"Vin Shea, President of the Minneapolis Chapter, informs me that he has some brand new ideas regarding new memberships," President Christensen hints as a warning to competing Chapters.

Chapter Meetings

MONTHLY meetings of the active Chapters of the Superintendents' Society are scheduled for the year, as follows:

Chicago Chapter, 1st Tuesday of month. Louis Ambler, Jr., The Glidden Company, President.

Kansas City Chapter, 2nd Tuesday of month. William E. Deegan, Continental Grain Company, President.

Minneapolis Chapter, last Tuesday of month. Vincent Shea, Van Dusen Harrington Company, President.

SOME MIX, EH PETE?

SO danged mixed up with these Farmers Marketing cards and all that goes with it that I haven't had time to think of anything else. Now I ask "GRAIN'S" readers, isn't it a mess?

The farmers around here are sore as heck about the proposition and are going to fight it from what I can gather. Government men talked to a meeting at the Chamber but no one learned very much.

Cutting started last ten days in June. Most plants filled up with CCC corn and so won't be able to take any loan wheat—and glad of it.

There will be SO much arguing about this marketing program that I am going to put a desk out on the elevator floor so that we can talk in comfort. There are SO many farmers that have not signed up and are of the opinion that they can sell all they have—and to heck with anybody about it. Haven't they a sad, sad awakening on that score?

Suppose the Superintendents' convention was a grand success?—Frank A. Peterson, superintendent, Norris Grain Company, Baltimore.

Doing a Fine Work

ITHINK the Superintendents' Society is doing a fine piece of work. —Walter R. McCarthy (honorary member of Superintendents' Society), President, Capitol Elevator Company, Duluth.

Best Program Ever Presented

THE Society of Grain Elevator Superintendents held one of the best programs ever assembled by that body in Minneapolis, last June. Moreover, it was believed by all who attended that it has not been surpassed by any grain or milling association program in recent years. Those who came felt well repaid, for there was something of interest going on every minute of the day.—Newton C. Evans, Editor, American Miller, Chicago.

Heard at the Convention



King
"What do you mean I look as young as my daughter? I'm the daughter!"

CAN SPEED STEEL DELIVERIES

To prevent steel companies from rejecting orders for defense and essential non-defense industries, a General Steel Preference Delivery Order has been issued by OPM. You can perhaps speed your steel order delivery by writing the Priorities Division of the Office of Production Management and advising it of your difficulties.

New Soybean Grades

Effective September 1st, 1941

	test weight	moisture	splits	damaged	foreign material	other* classes
No. 1	56	13%	10%	2.0%	1.0%	2.0%
No. 2	54	14%	15%	3.0%	2.0%	3.0%
No. 3	52	16%	20%	5.0%	3.0%	5.0%
No. 4	49	18%	30%	8.0%	5.0%	5.0%

*Black, brown or bicolored soybeans, singly or combined. Does not apply to grading of mixed beans.

SAMPLE GRADE shall include soybeans of any of the classes-yellow-green-black-brown or mixed, which do not come within the requirements of any of the grades No. 1 to No. 4 inclusive; or which contain stones and/or cinders; or which have any commercially objectionable odor; or are distinctly low quality.

Watch Drying Costs!

TERMINAL warehousemen who have had experience in drying wheat this season advise they are now finding that their charges for conditioning have not been enough to pay the cost of same with wheat at prevailing prices. When more "tough" wheat comes in it is just going to be a big headache for many.

DEALING OFF THE BOTTOM?

Claude Darbe, Simonds-Shields-Theis Grain Company, Kansas City, writes: "We are out from under the pile."

Expect he meant wheat, not cards.

GEORGE PAAPE TO SUPERIOR

George Paape, formerly Spencer Kellogg & Sons' Super at Long Beach, Calif., is now reported to be located at their Superior, Wis., plant.

SEARLE EMPLOYEES GIVE PLANE

THE employees of the Searle Grain Company, Ltd., have contributed a "Spitfire" plane to the R.A.F., according to L. C. Irwin, Super of their Lake-Head plant. The plane, now in England, bears the name of Flight-Lieutenant A. H. F. ("Hammy") Alloway, R.C.A.F., former member of the firm's research department, killed in a flying accident in England.

UGHT TO HARNESS POWER

Manning: It's wonderful what some insects can do. A grasshopper can jump 200 times its own length.

Poulton: That's nothing. I once saw a wasp raise a 200-pound man three feet off the ground.

Wasn't It a "Rockwell Kent"?

"WASN'T the July cover of 'GRAIN' a Rockwell Kent product? I thought I recognized this world-renowned artist's handiwork?" C. J. Alger, Corn Products Refining Company, Argo, Ill.

Ans.: Yes it was. His works appear on some of the better national magazines and he is noted for his artistry. We understand Artist Kent does all of his work on wood without pattern.

The original of this magnificent piece of work was done for the Commercial National Bank & Trust Company of New York, N. Y., and we are indebted to them for granting us their permission to reproduce same.

How well this work typifies Mother Nature, the Goddess of Plenty.



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